

Work Order ID 162366

Tuesday, June 06, 2017 4:57:31 PM

647.1403
B162366

162366

Page 1

Item ID: 647.1403

REV C

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Upper Cutter Assembly, U-Channel

Start Date: 6/7/2017 Start Qty: 1.00

1
1

DAS
21
9-89

Cust Item ID:

Required Date: 6/15/2017 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: DAS 21 Date: JUN 12 2017

Tooling:

Date:

Run Start

NR1

QC: DAS 21
9-89

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
647.1400	C

110 Pick Kit 0.00

110

Packaging

Memo

0.00

Packaging

2 JUN 21 2017

DAS
6
9-89

120

120

Small Fab

Memo

1.04

Small Fab

Assemble as per dwg and apply loctite 598 on all faying surfaces per note 2.

A/R RTV LOCTITE 598:
exp. date: 04/19

137757

2x

17/06/2017

DAS
36
9-89

130

130

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.02

2

DAS
38
9-89
JUN 26 2017

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 162366

Tuesday, June 06, 2017 4:57:31 PM

162366

Page 2

Item ID: 647.1403 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Upper Cutter Assembly, U-Channel
Start Date: 6/7/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 6/15/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Identify as per dwg & Stock Location CT043	0.00				2	DAS 6	JUN 26 2017	
140	Packaging	Memo 0.01					9-89		
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND REV***								
150	QC21- Final Inspection - Work Order Release	0.00							
150	QC	Memo 0.10							17/6/27
Quality Control									

DAS
21
9-89

JUN 27 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QS1042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Monday, June 05, 2017 4:53:41 PM

Page 1/2

Work Order ID: 162366

162366

Parent Item: 647.1403

647 1403

Parent Item Name: Upper Cutter Assembly, U-Channel

Start Date: 6/7/2017

Required Date: 6/15/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE JFS 13/07/03 VERIFY BY: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	----------------	--------------	---------------	----------------	--------

NAS1149FN832P

Purchased

No

110

Each

1,771.000

6

**

1812

JUN 21 2017

NAS1149FN832P

Washer

DAS

6

9-01

Location

Loc Qty

Loc Code

GA

358

M135058

208

M136182

40

M136866

110

ST263

1413

M137412

1413

MS27039-08-19

Purchased

No

110

Each

290.0000

3

**

12

56

JUN 21 2017

MS27039-08-19

Screw

DAS

6

9-09

Location

Loc Qty

Loc Code

GA

30

m135948

26

m137178

4

ST277

260

m137361

60

m137464

200

3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Description Work Order Deviation		Disposition			
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OTHER : ☐					

Picklist Print

Monday, June 05, 2017 4:53:41 PM

Page 3

Work Order ID: 162366

162366

Parent Item: 647.1403

647 1403

Parent Item Name: Upper Cutter Assembly, U-Channel

Start Date: 6/7/2017

Required Date: 6/15/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L08

Purchased No

110 Each 715.0000 3

MS21042L 08

Nut

**

JUN 21 2017

Location

Loc Qty

Loc Code

GA

100

m135274

6

m135978

94

ST303

615

m137391

391

m137464

224

647.1510

Manufactured No

110 Each 3.0000 1

647 1510

Upper Deflector

**

JUN 21 2017

DAS
6
9-8'

Location

Loc Qty

Loc Code

CCK090

3

127780

3

646.9702

Manufactured No

110 Each 10.0000 1

646 9702

Cutter Sub Assembly (U Channel)

**

JUN 21 2017

DAS
6
9-39

Location

Loc Qty

Loc Code

cck012

10

124140

4

128802

6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

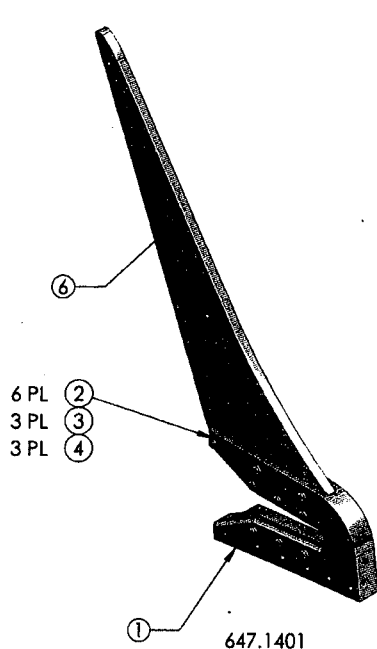
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Description Work Order Deviation		Disposition			
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OTHER : _____					

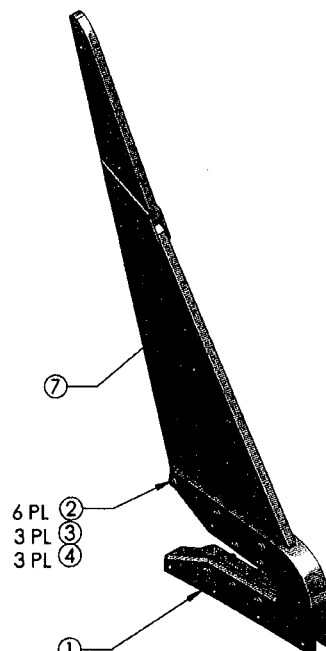
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NOTES:

1. IDENTIFY IAW MPP-120
2. APPLY F/N 5 AS REQUIRED TO ALL FAYING SURFACES OF F/N 1, 6, & 7 UPON ASSEMBLY



647.1401



647.1402

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 162366 M
170678

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	LAST PROTOTYPE REVISION: PR1		N/C
N/C	INITIAL RELEASE	06/15/09	P. BRAVO
A	INCORPORATED ECN'S 02962 & 03911	06/07/13	P. BRAVO
B	INCORPORATED ECN 05330	02/28/16	P. BRAVO
C	INCORPORATED ECN 05549	11/01/16	P. BRAVO

1	-	-	-	-	11	647.1514	UPPER DEFLECTOR		
-	1	-	-	-	10	647.1513	UPPER DEFLECTOR		
1	1	-	-	1	9	646.9703	CUTTER SUB ASSY		
-	-	1	-	-	8	646.9702	CUTTER SUB ASSY		
-	-	-	1	-	7	647.1501			
-	-	1	-	1	6	647.1510	UPPER DEFLECTOR		
A/R	A/R	A/R	A/R	A/R	5	601.2045	RTV, LOCTITE 598		
3	3	3	3	3	4	601.1541	LOCKNUT	MS21042L08	
3	3	3	3	3	3	601.2765	SCREW	MS27039-0819	
6	6	6	6	6	2	601.2764	WASHER	NAS1149FN832P	
-	-	-	1	-	1	646.9701	CUTTER SUB ASSY		
X						647.1405	CUTTER ASSY (UPPER)		
	X					647.1404	CUTTER ASSY (UPPER)		
		X				647.1403	CUTTER ASSY (UPPER)		
			X			647.1402	CUTTER ASSY (LOWER)		
				X		647.1401	CUTTER ASSY (UPPER)		
.1405	.1404	.1403	.1402	.1401	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.

QTY

NEXT ASSY (S)
647.1300

PARTS LIST

ORIGINAL DATE
(MM-DD-YY) 06-15-09
DRAWN BY
J. GARDNER
CHECKED BY
P. BRAVO
DRAWING APPROVAL
P. BRAVO
06-15-09
CONTRACT NO.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS ±.01
3 PLACE DECIMALS ±.005
ANGLES ±.5°

DART 3030 ENTERPRISE CT.,
AEROSPACE SUITE A
VISTA, CA. 92081
APICAL INDUSTRIES, INC.
(760)-724-5300
CUTTER ASSY
SIZE B CAGE CODE 07M26 DWO. NO. 647.1400 REV. C
SCALE NONE SHEET 1 OF 2

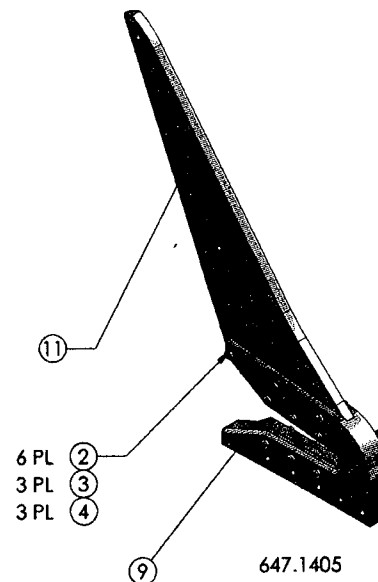
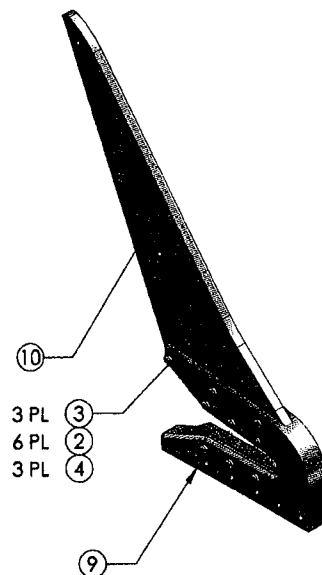
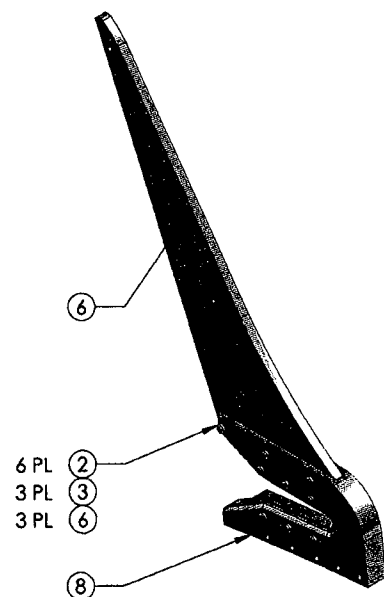
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A

B

C

D



ORIGINAL DATE 06-15-09		DART 3000 ENTERPRISE CT., AEROSPACE SUITE A VISTA, CA 92081 (760) 724-5300 APICAL INDUSTRIES, INC. dba DART AEROSPACE	
DRAWN BY J. GARDNER			
DRAWING APPROVAL P. BRAVO		CUTTER ASSY	
CONTRACT NO.		SCALE NONE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ± .5°		SIZE B	REV. C
		DWG. NO. 647.1400	SHEET 2 OF 2